Patent Abstracts of Japan

PUBLICATION NUMBER

03248077

PUBLICATION DATE

06-11-91

APPLICATION DATE

27-02-90

APPLICATION NUMBER

02046393

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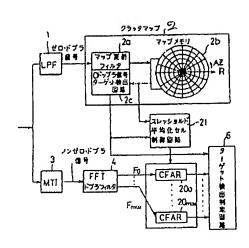
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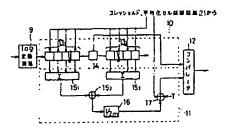
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TITLE

RADAR SIGNAL PROCESSING

SYSTEM





ABSTRACT: PURPOSE: To detect a target accurately without penetration of a point clutter by turning an averaging cell of a Constant False Alarm Rate (CFAR) blank or to other conditions by a signal obtained by a clutter map.

> CONSTITUTION: A radar signal is turned with a moving target indicator (MTI) 3 to a non-zero Doppler signal to be supplied to an FFT Doppler filter 4. A Doppler frequency per Doppler bank set here is selected to be picked up at each Doppler bank with an improved S/N. An output of the filter 4 is compared with thresholds by CFARs 20₀-20MAX and the non-zero Doppler signal of the Doppler bank with a level thereof exceeding the threshold is detected and judged to be a target. A threshold/averaging cell control circuit 21 judges a state exceeding a certain level according to a map condition of a clutter map 2 to be a point clutter. The resulting judgement signal is supplied to the CFARs 20₀-20MAX to turn an averaging cell blank corresponding to a range pin R_n among the averaging cells 13₁-13₂ of the CFAR of a bank N.

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